



John Reich Journal

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JRCS

JOHN REICH COLLECTORS SOCIETY
P.O. Box 135 Harrison, OH 45030

The purpose of the John Reich Collectors Society (JRCS) is to encourage the study of numismatics, particularly United States gold and silver coins minted before the introduction of the Seated Liberty design, and to provide technical and educational information concerning such coins.

Annual dues \$15.00

Life Membership \$375.00

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The **John Reich Journal** is the official publication of the Society and is distributed to all members in good standing. Members are encouraged to submit any articles encouraging the study of numismatics and / or relating to early United States gold and silver coins to the editors. Especially needed are articles containing new information about die marriages, die states of published die marriages, attribution methods, collections, collectors, etc.

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Cover Photos: 1800 B-18, BB-193 silver dollar. Both obverse and reverse dies used to strike this die marriage only. Very rare late die state. Obverse with die failure at stars 2 & 3, an arc like break connecting star 1 with star 4 and another connecting star 8 with star 11. Extensive die clashing and die breaks on reverse. Photo courtesy of ANA.

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Editors' Comments

Another year has come and gone and the annual ANA show is just around the corner. The opportunity to meet and exchange ideas and information at the show is always an exciting event. The annual meeting of the society will occur on Wednesday, August 8, at 8:30 AM in room 106 of the Cobb Galleria Convention Center. Regular business of the society will be conducted, including election of officers for the next year. We will also have an educational presentation given by Dr. Glenn Peterson and myself concerning our updating of the Browning Quarter Book. On Friday Glenn will host the inaugural meeting of the Bust Quarter Collector Society in Room 116. The open house, an informal meeting after hours, will be held in my hotel room on Thursday night. More information will be available at the show after room numbers are provided by the hotel. Word circulates via the grapevine. Bring something for show and tell.

You will also find enclosed with your journal a ballot for the current years voting for The Jules Reiver Literary Award. This award is presented annually to the author of the memberships' favorite article. Please take the time to vote for your favorite articles. You can vote for a total of three articles from the enclosed list regardless of the issue in which they appeared. All votes received at the club PO Box before I leave for the convention will be counted. Please do not delay, get your choices to me now!

The time has come for the collectors of the half dimes to rejoice! Your inventories are now requested as we will be publishing the half dime census in the next issue. Please send the information to the PO Box in the following format: Date, Variety, Condition. We would appreciate your sending the information for all the coins you own including duplicates so we may better represent the populations of varieties owned by the membership. Your identity will be kept confidential by using your membership number as identification. Should you have any questions please feel free to contact me.

Dues are now due! If you have received a yellow postcard in the envelope with your journal you need to remit your yearly dues of \$15. Please make your check out to JRCS and mail it to me at your earliest convenience. Or, you could opt for the life membership at \$375. Please either write your membership number on your check (it is on the postcard) or include the postcard with your remittance. This will help with bookkeeping. This is the last journal you will receive if you do not renew your membership.

We also still have some back issues of The John Reich Journal available for sale. They are \$5 each postpaid to the membership. Many individual issues are sold out, or nearly so. You can contact me via E-mail at Karoleffs4@aol.com if you would like more information on ordering and availability.

Bradley S. Karoleff, NLG

Capped Bust Half Dollar Secrets: Dots!

Edgar E. Souders, NLG

Dots - Probably the smallest thing that you can examine on a Capped Bust half dollar. At first thought, you would think that there would not be much to say about something so small as a dot. But as I found out, and as you are about to find out, much can be learned with a thorough microscopic examination.

When I first started this study I thought it would be relatively easy to identify and categorize a handful of interesting dots that showed up on our Capped Bust Halves. But the more I “got into it” the more I realized that the secrets of the dots were not so easily explained. Sure, there were the common ones like *center dots*, or the dot on the famous *Button Cap* variety of 1822, O-107 (more on that later), but what about the reason(s) for other dots on other varieties? Why do some dots appear perfectly round while others are oblong or “blobish”?

And so, once again, relying on my stereo microscope, a pinpoint fiber optic light source, my trusty computer and scanner - and devoting more time than I even want to admit - I started examining the halves themselves. I decided to use a higher magnification than I would normally use for similar studies simply because the dot devices are so small to begin with. At first, like many, I thought that basically a dot is a dot is a dot! But my studies showed a much different picture.

There are several different ways in which a dot (raised) can appear on a Capped Bust Half dollar. Some appear to be intentional while others are unintentional. Let’s jump right in and discuss the intentional first.

Center Dots

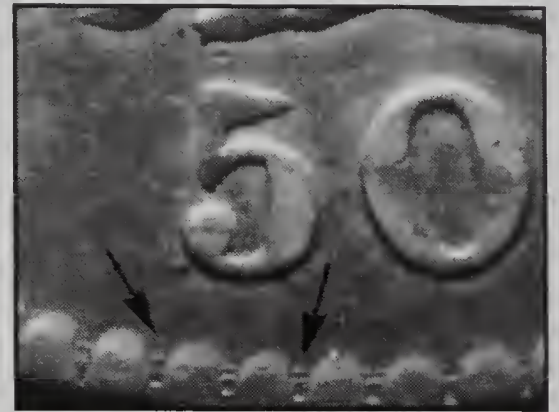
Probably the most common intentional dots are called “center dots”. On the obverse die the “center dot” was placed on the neck of Miss Liberty. The reverse center dot is located on the original design (1807 & 1808) just above the Eagle’s wing at the wing/shield junction, and later on the modified reverse design, approximately between the 4th and 5th horizontal crossbars on the shield.

As the name implies the center dot is an incuse marking intentionally punched into the working die (therefore raised on the halves) at the exact center of the obverse or reverse. It is generally accepted among researchers that the center dot was placed on the die by the engraver to



hold the point of a compass and then this compass would be used to scribe a line around the periphery. This incuse line was used to help in the layout of the smaller devices such as the dentils and the lettering.

As a side note, I should mention that these scribelines are usually only visible on early state specimens, and then only in protected areas. Under normal circumstances the lapping process, which polished the face of the working die, removed any unprotected scribeline. Also, scribelines would eventually be quickly eliminated due to wear on the face of the working dies themselves. As they warmed up, due to the constant pounding pressure, and the silver planchet metal expanded across their face, the die fields would begin to wear and remove the open area scribelines.



Unusual Center Dots

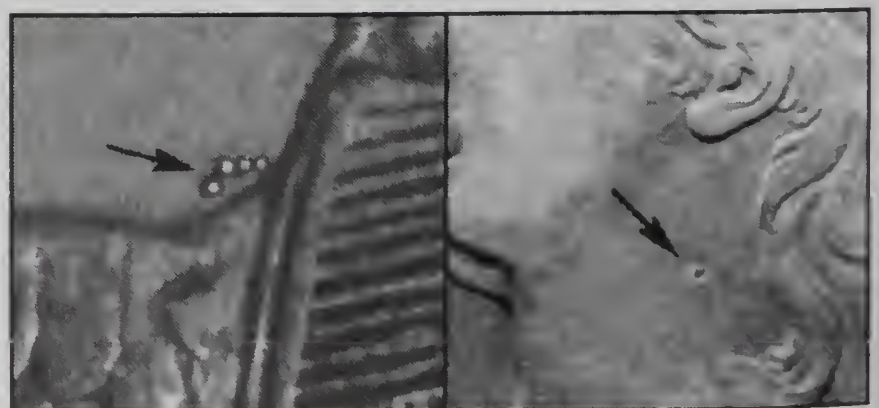
Once in a while center dots appear that are very unusual. For example, apparently, one day at the Mint John Reich was having “one of those days” as his center dot placement went crazy! In 1808, on O-107 the reverse shows four center dots on the reverse above the Eagle’s wing! Later when Chief Engraver Robert Scot (or possibly William Kneass) was doing the engraving he would create a reverse die in 1823 (O-105), which shows a center dot dead center on horizontal crossbar 5. First the dot was applied, then later when he was engraving the shield lines, he decided not to destroy the dot so he simply stopped the line short. The dot is sort of “floating” on the shield in this area! The following year in 1824 on O-107 he did the exact same thing except this time the dot worked out so that it was dead center on horizontal crossbar 4. Logic would dictate that the dot was still needed for layout of the lettering or dentilation. Also in this year we have an unusual center dot on one obverse die. On O-111 (and O-112) this very unusual center dot was placed on the neck of Liberty. It’s not the placement that was unusual but the shape of the dot itself. It is a raised dot in the middle of a depression giving the effect of a dot with a circle around it. It is my opinion that the depression around the dot was caused when the punch was hit too hard thereby impressing the actual shoulder of the punch into the working die. A synopsis of these unusual center dots is listed below.

1808, O-107, Reverse, 4 center dots above Eagle’s left wing!

1823, O-105, Reverse, 5th Crossbar stopped short of dot.

1824, O-107, Reverse, 4th Crossbar stopped short of dot.

1824, O-111, Obverse, Dot in depression on Liberty’s neck. (Also used on O-112).



Marking Dots

The next group of intentional type dots are what I have classified “marking dots” or dots that were purposely placed on the working dies for unknown reasons. Possibly the engraver did it for identification or trial ornamental effect. In 1809, O-112 shows a perfect dot that appears to have been punched between the E and S of STATES. Some thirteen years later in 1822 Scot created the now famous *Button Cap* variety (O-107) by placing a dot on the forward fold of the cap of Liberty. This dot does indeed look like a button holding the forward part of the cap down, but personally I find it difficult to believe it was intended to be an artistic representation of a button. Scot was very elderly at this point, (he died in 1823), not active artistically, and did little more than was required of him. Perhaps Scot was attempting to mark a die for some type of test. This dot is a mystery.

The next intentional marking dot that I found occurred in 1832 and was used on a single obverse die (O-113 and O-114) on two different marriages. This dot was placed perfectly at the jaw/neck junction. Under high magnification it does not appear to be a rust pit dot nor does it appear to be a die chip. Although this dot is not perfectly round, on the high-grade example that I examined, it does have a “smoothness” characteristic of a punched dot. Even though much experimentation was taking place at the Mint at this time I can find no unusual “anything” about this obverse die other than the dot itself. I even scanned this coin in at 10X and created a see through overlay using Photoshop 6 to try and determine if there was some normally unforeseen experiment going on. But aside from my above mentioned observations I have been unable to come up with a logical reason for its placement.

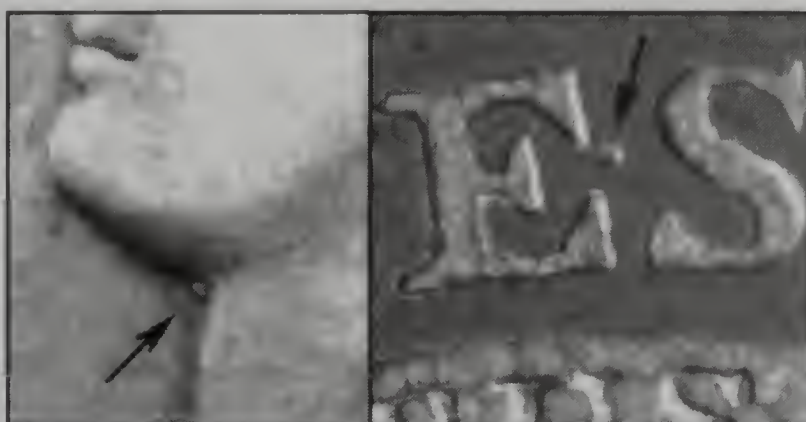
For your perusal a synopsis of intentional marking dots appears directly below. This sums up the study of the intentional dots on the Capped Bust Halves, but we are far from being done.

1809, O-112, Reverse, Dot between E and S of STATES. Perfect dot.

1822, O-107, Obverse, Button Cap

Variety. Dot placed on Liberty’s cap fold.

1832, O-113 & O-114, Obverse, Dot placed at throat/neck junction of Liberty.



Overdate and Date Remnant Dots

Now we come to another interesting area of dot study and that is the unintentional creation of dot(s) on the halves. There are a few ways unintentional dots can appear.

The first way they can show up is from the overdating of dies. These dots are usually the remnants of the undertype, which were so deeply punched into the working die, that heavy lapping failed to remove all traces. I classified these as “Overdate and Date Remnant Dots” which are dots that show up in the date area on the halves. Interestingly, not all are overdates as one might assume.

The first die showing this interesting characteristic is the *Punctuated Date* of 1811/10, O-101 and O-102. On O-101 the dot is very bold and a second remnant of an underlying numeral is near the upright on the right side of the second 1. This is why Al Overton referred to this variety, as the “Double Punctuated Date” although this raised remnant is certainly not dot shaped. The curve of the earlier underlying 0 also shows to the right of the last 1. But, back to the dot! Upon examination it appears that the engraver purposely punched the dot, perhaps to cover up an unusual blemish type remnant. Maybe he simply thought a dot looked better than whatever was visually there in the first place. On O-102 the die was heavily lapped which took care of the small remnant next to the second 1, and the curve of the 0 next to the last 1. Still, the major dot remained, although smaller due to the lapping process.

The second *Punctuated Date* is that of 1817 (O-103) which shows a beautiful dot between the last 1 and 7 of date (181.7). This dot may have been due to a dropped object on a softened working die although it is very perfect in shape. It is not, however, an overdated die, and it is certainly not over an earlier 4 as some have speculated. This “4 overdate theory” can be proven untrue by comparison of Sub-Design types.

Our next date remnant dot appeared in 1834/4 (O-106), and shows up as an irregularly shaped dot above the crosslet of the existing 4 numeral. This is the Large 4/Small 4 variety. Under magnification there are other minor traces of the underlying smaller 4 visible.

The very next year, in 1835, another dot occurred on O-107. This time the dot is to the right of the outer curve of the 5 in the field. Overton again speculated that this might be a 5 over 4 overdate - and he just may have been right. Still, there is not enough visual evidence to prove this one way or the other.

The final dot varieties in this category came two years later in 1836 and appear on *several* different varieties. These are O-101, O-112, O-118, O-120, O-121 and O-122 and are generally referred to as the *Bar Dot* varieties. Overton thought that these dots were possible overdates with the 6 numeral punched over an earlier 4 numeral. O-101 and O-112 shows the bar dot and O-118 has an additional dot inside the loop of the 6 leading Overton to state that “this might be the best candidate for the 6 over 4 overdate.” O-120 and O-121 also show the bar and dot but it appears much weaker than seen on the other varieties. O-122 shows the dot to the right of the 6, but again it is much stronger in detail. A synopsis of the Overdate and Date Remnant Dots category is listed below.

1811/10 (18.11), O-101 & O-102 “Punctuated Date” Remnant of underlying numeral.
(181.7), O-103 “Punctuated Date” Not remnant of underlying 4 as some believe.

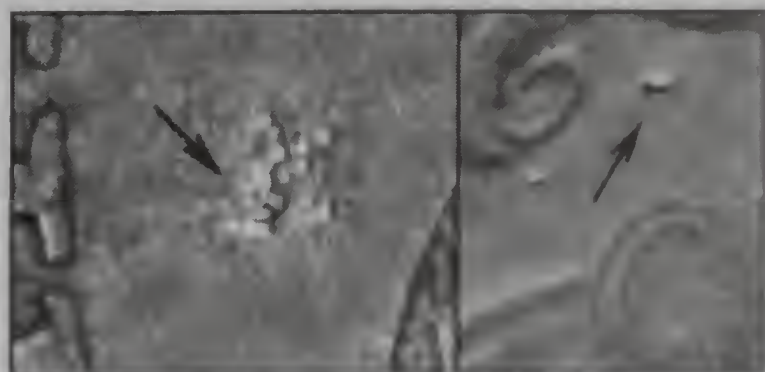


1834/4, O-106, Possible Overdate. There is a malformed dot above the crosslet of 4.
 1835, O-107, Possible Overdate. There is a dot to the right of the curve of the 5.
 1836, O-101, O-112, O-118, O-120, O-121 and O-122. Possible overdates (over 4).
 Bar Dot varieties.

Working Die Rust Pit Dot(s)

The second way unintentional dots can appear, and certainly the most common, was due to extreme rust causing pits on the working die face. In fact, I was quite surprised as to how many varieties show die rust damage. This must have been a constant battle for the early Mint. At first, while working up this categorization, die pitted dots were somewhat difficult to determine, but I found that if I increased the magnification I could see irregularities on the surface shape of the individual pits and sometimes even irregular or varying heights. Also, at this higher magnification level, oftentimes more minute pits were evident around the major naked eye pit, or close by in protected device details. Next, I located and categorized the most predominate specimens within the series and ones that did not change due to lapping or die wear – at least to any significant degree. There are many other Capped Bust Half dollar varieties that show light die rust in early die state, but due to the above mentioned lapping processes the minute dots were no longer visible in mid or late die state. Therefore, no further mention of these “come and go” rust dotted varieties will be made. With that said, I present for your perusal those rust pitted pieces that are visually significant throughout the die life, and therefore attributable on all known surviving pieces. A synopsis of the Working Die Rust Pit Dot varieties are listed below.

1809, O-107, Reverse, Several pit dots between 50 and C.
 1809, O-112, Reverse, Dot below M of AMERICA (Also, see “Marking Dots”).
 1810, O-101, Reverse, Three pits below end of feather left of 5 in the denomination.
 1810, O-103, Reverse, Several pit dots between 50 and C.
 1810, O-108, Obverse, Rust pit dot below Star 7.
 1811, O-111, Obverse, Pit dots (several) below Liberty’s ear.
 1818, O-103, O-104 & O-105, Reverse, “Blob” rust pit dot below RI of AMERICA.
 1818, O-113 (& some O-114), Reverse, Pit dots between E and D of UNITED.
 1822, O-102, Obverse, Pit dots (right and left) above Star 12.
 1822, O-105, Reverse, Pit dot above Eagle’s neck in field & between a few feathers.
 1822, O-111, Reverse, Many pit dots below Eagle’s left wing in field.
 1824, O-102, Reverse, Blobs pit dot below scroll beneath second U of PLURIBUS.
 1825, O-104, Reverse, Pit dot in field midway below scroll and left wing.
 1825, O-107, Reverse, Pit dot (blobish) beneath E of STATES just above scroll.
 1827, O-108, Reverse, Many pit dots beneath IT of UNITED in field.
 1827, O-109, Obverse, Many pit dots above center dot on Liberty’s neck.



1827, O-143 & O-148, Reverse, Oblong pit dot above Eagle's beak.

1828, O-110 & O-111, Obverse, Many pit dots below and left of Liberty's main curl.

1828, O-116 & O-121, Reverse, Many pit dots above right claw & into feather detail.

1831, O-113, O-114 & O-115, Obverse, Pit dot(s) above and slightly to right of clasp.

1833, O-106, Reverse, Many pits behind Eagle's head in field and into feather detail.

Miscellaneous Dots

This last categorization is what I refer to as strange "Miscellaneous Dots". These types of dots would have shown up if something small were dropped on the face of the softened working die, during the die preparation process. The result would have been that this dot/mark would then transfer to all struck halves produced from this die. These types of dots are different from intentional dots, or rust pit dots, in that they are generally very smooth, do not have differing heights, and do not have other rust type pit dots near them. Miscellaneous dots are usually visually apparent in the field, as this is the highest area on the die. Still, on rare occasion, this type could occur on one of the devices, if the dropped item happened to hit inside the device depression. I also added varieties here that were "too close to call". I am very open to your input on these questionable pieces.

The first that I want to discuss is the 1813, O-103. Here on the reverse there is a dot above the Eagle's left wing. Some researchers call it a "spike" while others have referred to it as a "lump" but it differs from a spike (graver slip) or lump (usually somewhat indistinct and irregular in shape) in that it is too perfectly formed. I believe this dot to be from a dropped object such as a punch.

The following year in 1814, O-107 was created with an odd obverse shape in the field. Directly behind Liberty's ribbon ends, and reaching nearly to the star devices, is a raised hairpin shaped type "damage" with a dot directly above it. This dot is irregular in shape and appears to have been created from a dropped "something" most likely related to the raised hairpin shape. What was dropped is something yet to be determined.

In this same year of 1814, O-108 shows another interesting dot on the bottom inner point of star 2. This dot is not the result of "recutting" or a die chip, but is rather a distinct dot. And there are no traces of rust pits anywhere around the star in the field either.

Not to be outdone in interest the next dot appears in 1823 on O-111's obverse in the form of a distinct dot INSIDE the left arm of T in the LIBERTY headband. This is a raised dot inside the incuse T! The only one seen of this type in the entire series. Chief Engraver Scot was still working at this time, but this hidden dot placement reminds me of something that Reich might have done - like he did with the scalloped 13 star to mark dies made by him during his tenure at the Mint.

A year later in 1824, a horizontal dot shows on O-110's reverse. This "dot" is more tear shaped and higher on the heavier side. It appears to have been formed when a dropped

object hit at an angle in the field below the scroll and Eagle's right wing. It is directly below the first U of UNUM.

In this same year of 1824, O-115's reverse shows a similar teardrop shaped dot although vertical. This dot is in the field below the end of the scroll, on the left-hand side, and the Eagle's left wing. It, like O-110's, is higher on the heavier side.

A single variety (O-107), in 1825 shows an unusual dot on the reverse below the letter E of STATES and the top of the scroll. Actually, it appears as if it is two small dots joined together. This double dot could be the result of an unusual rust pit, but I cannot be sure. I have listed it here for your future consideration.

In 1826 on O-110, a perfectly formed dot appears directly above the uppermost claw of the Eagle just into the field and below the breast feathers. This dot could also be a rust pit dot, and there is some evidence of pitting in the protected feather detail, however this dot is so distinct, rounded and perfectly formed that there is a question as to its origin.

The very next year in 1827, on O-108, we have an unusual obverse dot that shows up near the inner lower point of star 1. This IS NOT a recutting remnant of the star and is perfectly formed with excellent detail. So much so, in fact, that I gave it considerable study to try and determine if it was an intentional marking type dot. It is not a rust pit, is not an earlier star remnant, and is not from a dropped object. This obverse was first paired to make O-108; the reverse of O-108 was then paired with 1828 O-101 and then remated back to the same reverse to make more O-108's. Is this an identity dot for the obverse?

Again in 1827, on O-114, we have an obverse dot that is very unusual and unique to the series. Here the dot appears INSIDE the left arm of the incuse Y in the LIBERTY headband. This dot could be the result of die chipping and sort of has the look. It is not as perfectly formed as the 1823, O-111 with the dot inside the left arm of the T in LIBERTY. Still, it is the only other dot which shows up inside the incuse headband lettering.

In 1828 on O-114 and O-123 we have a dot on the reverse die that displays itself attached to the bottom of the scroll directly below the second U of UNUM. This one looks to be a die chip that formed in a rust pit. There are several other minute rust pits in the adjoining field area. The pit may simply have weakened the metal in this area causing a small dot to chip out.

Four years later in 1832 on O-112 (and some O-111's) we have a reverse that shows two misplaced dots between crossbars 4 and 5. These are not center dots, are not remnants of the vertical shield lines going in to the horizontal shield lines, and not rust pits. But they are definitely unusual, predominate and could even be intentional.

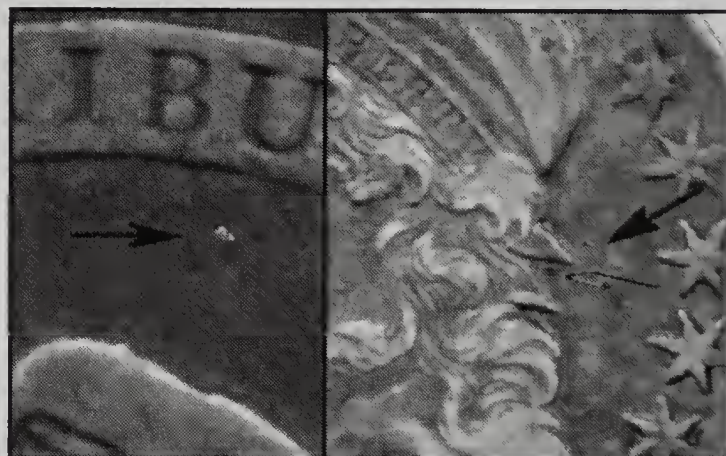
In 1833 we have the last of the miscellaneous dots in the series on O-114. This dot is located on the obverse field on the inner point of star 11. The dot is not due to rust, recutting of the

star, or a die chip. It does have a slight teardrop shape leading me to believe that it may have been due to a dropped object. But there is just not enough there for me to conclusively make that statement.

For your perusal I have listed all mentioned Miscellaneous Dots below.

- 1813, O-103, Reverse, Dot above Eagle's left wing.
- 1814, O-107, Obverse, Dot & raised "hairpin" shape in field just behind ribbon ends.
- 1814, O-108, Obverse, Dot on bottom of inner point of Star 2.
- 1823, O-111, Obverse, Dot inside of the left arm of T in LIBERTY headband.
- 1824 over 4, O-110, Reverse, Dot below U of UNUM.
- 1824, O-115, Reverse, Dot in field below scroll corner and left wing.
- 1825, O-107, Reverse, Dot beneath UN of UNITED.
- 1826, O-110, Reverse, Dot above right claw of Eagle.
- 1827, O-108, Obverse, Dot at Star 1.
- 1827, O-114, Obverse, Dot inside left arm of Y in LIBERTY headband.
- 1828, O-114 & O-123, Reverse, Dot attached to scroll below 2nd U of UNUM.
- 1832, O-112 (some O-111's), Reverse, Two odd dots between crossbars 4 and 5.
- 1833, O-114, Obverse, Oblong dot above inside point of Star 11.

While dots on Capped Bust halves may at first seem insignificant, as you can see, they do have a story to tell - no matter how small. I hope you have enjoyed this dot study. It was fascinating and an experience that I wanted to share with you. As for me, I have turned out the microscope light. AND I NEVER WANT TO LOOK AT THAT MANY DOTS AGAIN!



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The Collar Dies of our First Mint

Russell J. Logan

Probably the least understood aspect of Federal numismatics is the design and function of the edge collars used to make the half dimes, dimes, quarters, quarter eagles, half eagles and eagles. Both Breen¹ and Taxay² claim the reeding on the early issues was the result of the Castaing machine, while Mark Borckardt³ suggests that William Kneass initiated the one piece reeded edge collar die.

For its first ten years, the Mint discouraged clipping (the debasement of coins by shaving) by utilizing the Castaing machine for edge lettering the half cent, cent, half dollar and dollar. All other coins manufactured by the U. S. Mint were reeded, albeit feebly when compared with their subsequent 1829 brethren. The pre-1829 coins are often referred to as the "large" planchet varieties. Only the half dollar retained its lettered edge until late 1836, when a steam coinage press was installed.

In 1828 William Kneass, the Chief Engraver of the United States Mint, succeeded in redesigning the collar die of the dime, making it more uniform in diameter and thickness so that the coins could be successfully stacked. This change in our coinage is also noted in 1829 for half dimes, quarter eagles and half eagles, and in 1831 for quarters. The visual differences are obvious: The elongated dentils became beads; the rim of the coin became higher and sharper; the edge reeds more defined, and the thickness of the coin was greatest at the periphery. These changes greatly prolonged the life of the coin.

Open Collar vs. Closed Collar

The terms "open collar" and "closed collar" are not the creation of some twentieth century numismatist seeking a way to describe the differences between an 1820 and 1835 quarter. These words were first used by Robert Patterson⁴, Director of the United States Mint, in a letter to Levi Woodbury, Secretary of the Treasury, on November 8, 1836. Patterson was boasting about the merits of the new steam press by comparing the edges of the old lettered edge half dollars to the reeded edge halves of 1836. Patterson writes:

"You will observe, too, that the work is better done. The old coin is struck in what we term an OPEN COLLAR; this is struck in a CLOSED COLLAR, which makes the edge of the pieces thicker, and gives a mathematical equality to their diameter."

Patterson continues:

"These alterations, including a change in diameter of the piece, such as was introduced in the quarter dollar, have met approbation of the government."

He implies that, finally, the half dollars were being produced in the same fashion as the quarters.

We know from Benjamin L. C. Wailes's diary that he visited the Philadelphia Mint on December 28, 1829, where he viewed the coining of Half Eagles. He describes the edge collar in detail:

"At the lower end of the screw is affixed the die which gives the impression on the upper side, & immediately under it is the die containing the impression for the reverse of the Coin, around which a pair of nippers (which gives the milling or impression on the edges), & which by placing as a rivit [*sic*] in the manner of sheers [*sic*] admits the introduction of the coin before & its ejection after it receives the impression The screw is brought down and the *nippers* close with a force that makes the impression. The leaver [*sic*] is instantly brought back, the *nippers* open, the Stamped Coin is struck out of its place & conveyed into a Box by a spout (or conductor) as the Screw rises, and another unstamped Coin takes its place, & the Screw comes down again."

I have read and reread this passage, perhaps a hundred times, both as published by The Historical Society of Pennsylvania in 1954 and by Don Taxay in his book *The U.S. Mint and Coinage*, and I have never been able to quite visualize what Mr. Wailes describes seeing. What bothered me was his referral to a "pair" of nippers; I had always assumed them to be 'right and left hand'; opening and closing like a clam, squeezing the planchet and making the reeding, while the 'rivit' was holding the nipper halves together during the strike.

Wrong!

Maybe I should have spent more time perfecting my literary skills in college, but my mechanical training would not yield to such paltry fundamentals. So, in reading Wailes' dairy again, I asked myself if the *pair* of nippers could refer to 'top and bottom' [rather than right and left]: one for each die, and that the nipper on the anvil die would shear the edge of the planchet like a rivit being forced into its hole. In that way, it made perfect sense to me.

What Mr. Wailes saw that last December Monday morning in 1829, was the closed collar die striking Half Eagles. See Figure 1. This tight fitting collar die [*nippers*] sheared the periphery of the planchet as it was forced into the die, and the remaining detail of the reeds was imparted during the strike. Because the annulus between the collar die and the planchet was less than on the open collar arrangement, the periphery of the coin was finished with more detail. The earlier 1829 strikings of the 1829 Half Eagles were the open collar examples with the elongated dentils. See Figure 2.



Figure 1 - The closed collar half eagle with beaded dentils. These coins were being struck on December 28, 1829 during Mr. Wailes visit.



Figure 2 - The earlier open collar strikings of the 1829 half eagle exhibited the elongated dentils with a flat border.

The Castaing Machine

Jean Castaing designed and built a successful edge rimming device in France sometime prior to 1679. Although he has been credited with the invention of the mechanism for deterring clipping the edge of coins, his machine was not the first to be employed at a commercial mint. Similar machines were in operation in England; but Jean Castaing's design has received most of the twentieth century credit.

As we all know, counterfeiting was punishable by death, and the debasing of coins by edge clipping was considered a very serious infraction of the law. Castaing's edge rimming device was successful in deterring clipping, and it was used a full century later by the United States Mint. The half cents, large cents, half dollars and the dollars were initially manufactured by employing the Castaing machine, but *only* the half dollars were manufactured with a lettered edge after 1803.

The lettered edge Capped Bust half dollar is the major source of our knowledge of the United States Mint Castaing machine. The edge lettering was applied to the periphery of the planchet in a separate manufacturing operation prior to striking the coin. This machine consisted of two grooved and parallel steel bars, one fixed and the other moveable. The distance between these bars was slightly less than the diameter of the planchet to be coined, and by sliding the movable bar parallel to the fixed bar and rolling the planchet between the bars, the edge letters were impressed into the edge of the coin.

Collectors have documented Bust halves that have eluded the Castaing machine and still show the shear-fracture plane around the periphery. They covet those Bust halves that have multiple and inverted edge lettering, and are amused by all the offset Bust halves that have partial or blundered edge lettering as described in the last pages of Overton's book.

The Collar Die

There have not been any Bust half dimes, dimes, quarters, or Federal gold coinage documented that share the Bust-half-dollar-like idiosyncrasies of the Castaing machine. Instead, all edge variations for both the open collar and closed collar dies are closely linked with the integrity of the obverse-reverse strike, and there is ample evidence to prove that their reeded edges were applied by the collar die during the striking of the coin. This is best confirmed by studying the off centered and multiple struck coins, but can also be verified by some normally struck coins.

Off Centered Strikes

Illustrated in Figure 3 is an off centered 1818 Browning-1 quarter. This photograph was taken with the aid of an edge mirror to show the edge of the coin in the plan view. There is no edge reeding evident anywhere on this coin, indicating that the planchet



Figure 3 – A 7% off center 1818 B-1 quarter as photographed with an edge mirror. Note the absence of reeding.



Figure 4 – A 10% off center 1814 JR-1 dime as photographed with an edge mirror. Again note the absence of reeding.

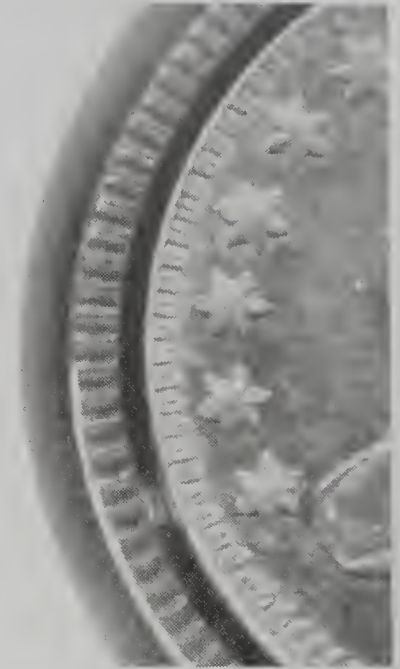


Figure 5 – A double struck 1827 JR-4 dime as photographed with an edge mirror. Note the doubled edge reeds especially between Stars 2 and 4.

was offset from the collar die. Had the reeding been applied by a Castaing machine earlier, the edge reeding would be intact. A low grade 1821 B-1 quarter examined by the author which is 5% off center also has no edge reeding. Another off centered quarter is cited in the 1992 Bowers and Merena reprint of Browning; it lists an 1819 B-1 with a plain edge that sold at Stack's 10/76:311. The lists goes on: an 1814 JR-1 Bust dime, offcentered by 10% has no edge reeding; see Figure 4.

All these coins were struck outside the collar and received no edge reeding because the collar die did not captivate the coin during the strike. I am not aware of any normally struck Bust half dimes, dimes or quarters that have no reeding.

Oncenter Multiple Strikes

Double struck Bust dimes where both strikes were struck on center are a rarity, but a few do exist. Figure 5 is an 1827 JR-4 double struck obverse dime photographed with an edge mirror. This coin exhibits double edge reeds in the Star 2 to Star 3 area. That both the obverse and the edge are double struck tells me that the impressions from the edge collar happened concurrently with the strikings of the coin.

Malformed Edge Reeding

During the 1986 Coinage of the Americas Conference at the American Numismatic Society, William J. Subjack⁶ identified four open collar Capped Bust dime die marriages that shared a unique collar die. This collar die had a pair of Siamese reeds opposite the arrowheads and occurred on four die marriages: 1821 JR-10, 1823 JR-1, 1823 JR-3, and 1824 JR-1.

To have the Siamese reeds occur at the same location on all examples of these four die marriages is impossible if the collar die did not strike the edge of the coin at the same time as the obverse and reverse was struck. See Figure 6.



Figure 6 – A common 1821 JR-10 Bust dime as photographed with an edge mirror. Note the Siamese reeds at the arrowheads. This same edge collar was also used for die marriages 1823 JR-1, 1823 JR-3, and 1824 JR-1.

Conclusion

Although we have little historical documentation of the collar dies used at the U.S. Mint, the writings by Messrs. Wailes and Patterson support the physical evidence garnered from studying the coins. Early Capped Bust coins that were struck off center show no evidence of reeding, others that were double struck show evidence of double reeding, and some early Capped Bust dimes show a flawed collar defect in the same spot, proving that early Federal half dimes, dimes, quarters, quarter eagles, half eagles, and eagles were not reeded in a Castaing machine, but struck by a collar die in the Screw press.

In 1828-29, William Kneass redesigned the collar die to produce a uniform thickness at the periphery for stacking purposes. The elongated dentils became beads; the rim of the coin became higher and sharper; the edge reeds more defined, and thickness of the coin was greatest at the periphery. But the manufacturing process remained unchanged: the collar die continued to form the reeds during the striking of the coin.

ENDNOTES

- ¹ Breen, Walter, Walter Breen's Complete Encyclopedia of U.S. and Colonial Coins, published by F.C.I. Press, Inc. Doubleday, a division of Bantam Doubleday Dell Publishing Group, Inc. 1988, p 524.
- ² Taxay, Don, The U. S. Mint and Coinage, Arco Publishing Company, 1966 p 92.
- ³ Clark, Cathy L., Jewels of the Bass Collection, The Numismatist, The American Numismatic Association, Volume 114, Issue 6, June 2001. Commentary by Mark Borckardt, senior numismatist from Bowers and Merena. pp.631-2.
- ⁴ Patterson, R. M., Director of the Mint of the United States, Philadelphia, Nov 8, 1836, to Levi Woodbury, Secretary of the Treasury, National Archives, Washington, DC, Letter from the Mint, V Series, Vol. 1 as reprinted by Piper, Richard, The Elusive 1836 Reeded Edge Half Dollar, published by Piper Publications, Wheaton, Illinois, 1976. pp.29-30.
- ⁵ Wailes, B.L.C., A View of Philadelphia in 1829, The Pennsylvania Magazine of History and Biography, Volume LXXVII, July 1954, pp. 353-8.
- ⁶ Subjack, William J. and Lovejoy, Allen F. , "Early Dimes, 1796-1837," a paper given for the 1986 Coinage of the Americas Conference at the American Numismatic Society. Subsequently published as The America's Silver Coinage, 1794-1891 by the American Numismatic Society, New York City, 1987. pp. 123-4.



A Closer Look at 1827 JR10

Mike Sherrill

One of the key capped bust dime die varieties, 1827 JR10 is represented today primarily through a small handful of proof examples. In recent years, as more collectors and dealers have attributed increasing numbers of bust dimes, a few circulated examples of 1827 JR10 have turned up. Therefore this variety is not a proof-only issue, although it may be that all extant examples originated as proofs, and some eventually made their way into the channels of circulation¹.

This die variety exhibits several noteworthy features, some of which suggest the variety was the first struck with a closed collar for the dime denomination. Conclusive proof of this theory has not yet been established, but perhaps the information provided here will be a catalyst to generate it.

The Die Marriage

Early United States Dimes indicates 1827 JR10 was created from the combination of 1827 Obverse 6 and 1827 Reverse F, the 2nd use of both the obverse and reverse dies². Prior to the striking of this marriage, the dies were polished and the reverse die reworked, ostensibly for the creation of presentation pieces. It is not clear if the purpose of this die marriage was only to produce presentation strikes, or if the reverse die crack advanced rapidly, and additional strikes became impossible. With the exception of two of the circulated examples listed below, for which it cannot be determined, all other examples of this die marriage appear to have been struck as presentation pieces.

Possibly these JR10 proofs were struck coincident with the 1827 original proof quarters, and for the same unknown purpose, event, or dignitaries. If we speculate the same number of quarters and dimes were struck, and all existing specimens of 1827 JR10 began as proofs, then several more examples of 1827 JR10 may exist. It would seem demand for these 1827 proofs was not strong, and surplus examples of both 1827 dimes and quarters made their way into circulation. For economy reasons, it makes sense any “leftover” proofs would be thrown in with business strikes slated for circulation rather than melted and recycled at the mint.

Die Characteristics

As expected, the proof specimens are well struck from polished dies and contain full dentil definition. An area of striking weakness is noted on star 7 which has little or no radial line definition within the star even on the finest known, superior strike Cleneay, Lovejoy specimen (example 3 in the list). Some central weakness is noted on the Starr specimen and the obverse die is clashed above the date on this specimen. This feature is not recorded for

the other known proofs, although the auction photo of the Lovejoy example indicates the obverse of this example may also be struck from clashed dies.

The obverse rim of this variety is unusually wide (especially above the cap) compared to strikes from other so-called open collar die marriages; this is noted in the Auction '89 and Floyd T. Starr auction catalog description of examples 2 and 4 in the list below. The wide obverse rim is also present on circulated example #8 in the list.

The proof examples exhibit full mirror-like fields, even within the reverse shield lines, indicating special polishing and die preparation prior to striking. Circulated example #8 in the list below also appears to have been struck from polished dies. Adjustment marks are noted on the Starr and Lovejoy examples, as made. The adjustment marks would indicate care was taken preparing the planchets themselves; adjustment marks are uncommon on coins of this late a date. I was unable to determine if any of the 1827 proof quarters contain adjustment marks.

Apparently in an effort to improve the detail of the image imparted to the planchet, several letters in the legend of the reverse die were repunched in the interval between the striking of the JR7 and the JR10 die marriages. Noticeable repunching occurs especially on the letter T3. It is interesting that only the reverse die was chosen for these enhancements, as no improvements are noted on the JR10 obverse between its first and second use. Extensive repunching has also been noted on the reverse of JR8, another die marriage used to strike one or two proofs of this date.

As well as can be determined, each of the proof examples has a fine semi-circular reverse die crack starting at the right rim and proceeding through the F, to the scroll between the 2nd U and the S, and then to the eagles neck and partway through the wing. Although this crack appears light in all known specimens, it's possible the additional striking pressure applied to bring up the design details broke the reverse die soon after it was commissioned. This is one possible account for the rarity of this die marriage; another is that this is truly a proof only issue. The repunched letters on the reverse and the reverse die crack have not been seen on any examples of JR7, the first use of this reverse die.

First Use of The Closed Collar?

A convincing argument may be made that the 1827 JR10 die marriage was the first United States dime struck from a closed collar. Let us examine several factors that corroborate this theory.

1. THE DATE IS APPROXIMATELY CORRECT. Both 1828 die marriages and later years were struck from closed collar dies. 1827 JR10 may have been the last of the 1827 marriages. Perhaps because the JR10 die marriage is the second and last use of the obverse and reverse dies, we do not see any of the same characteristics of the JR10 marriage on any other 1827 die variety.

2. THE PURPOSE OF THE DIE MARRIAGE MAY HAVE BEEN TO CREATE SPECIMEN STRIKINGS OF THE NEW CLOSED COLLAR DESIGN. These specimens were used to demonstrate the closed collar concept to individuals who would supply the funds for and authorize the final design in the following year.
3. ENHANCEMENTS WERE MADE TO THE REVERSE DIE BETWEEN ITS FIRST AND SECOND USE. This is an unusual occurrence, suggesting the importance of the new die marriage. It was not uncommon for dies to have been polished to remove clash marks between uses, but repunching of design letters only occurs on 1827 JR8 and JR10. It's interesting to note that clash marks exist on the Starr specimen. Either the Starr coin is a very early strike and the polishing of the obverse die did not completely remove clash marks suffered during the JR7 marriage, or, more likely since no examples of JR7 with clashed obverse have been noted, the dies clashed during the striking of JR10. Either event is very remarkable considering the attention paid to the details of the striking of this marriage. How incongruous to adjust planchets with a file and repunch letters into the reverse die, and then be careless enough to clash the dies.
4. THE ADJUSTMENT MARKS ON THE PLANCHET ARE EXTREMELY SIGNIFICANT . To my knowledge no other coins of this era, proof or otherwise, contain adjustment marks. Adjustment marks remove metal from the surface of the planchet to diminish its weight. Someone went to the trouble to make absolutely sure the planchets were the correct weight. Why? Perhaps to eliminate any possibility that an opponent of the experimental closed collar design might say the superior product was due to an overweight planchet.
5. THE OBVERSE RIM IS UNUSUALLY WIDE AND RAISED ON SEVERAL EXAMPLES. THE DENTILS ARE BEADED AND EDGE REEDS ARE QUITE UNIFORM. This is the most telltale sign a closed collar was used to strike the JR10 marriage. Note the date in the following quote from Walter Breen's Encyclopedia: "Mint Director Samuel Moore triumphantly laid the cornerstone of the new Ming building...on July 4, 1829...On the same day, Moore notified Treasury Secretary Levi Woodbury that coinage of half dismes had begun, embodying several mechanical improvements which he proposed to extend to all other denominations as soon as possible. Notable among these were wide, raised protective rims around a beaded border, and a "close collar" (called by Eric Newman and others a "collar die"), which confined planchets at striking, simultaneously reeding edges of gold and silver pieces, and imparting what Moore called "a mathematical equality" to their diameters. This improvement was extended at once to dismes, quarter eagles, and half eagles..." It would hardly be unusual to use leftover 1827 dies for trials for these 'mechanical improvements', possibly in mid to late 1829. Please compare the obverses in Figures 1-3. These three coins are approximately the same grade and illustrate how the obverse rim of the 1827 JR10 is more similar to the 1828 JR2 (considered to have been struck from a closed collar) than the 1827 JR7 (considered to have been struck from an open collar). Note how the rim edge is raised above the level of

the dentils on the 1827 JR10, at least for part of the periphery, but the dentils actually form the rim of the coin in the 1827 JR7. The rim is raised around the entire periphery on the 1828 JR2. The other feature of the closed collar, the beaded dentils, compare more favorably between the 1827 JR10 and the 1828 JR2 than the 1827 JR10 and the 1827 JR7. Because the 1827 JR10 exhibits the beaded dentils, but only a weak raised rim that did not extend around the entire periphery of the coin, possibly it was struck from an experimental or transitional closed collar die.



FIGURE 1. 1827 JR7 OBVERSE



FIGURE 2. 1828 JR2 OBVERSE



FIGURE 3. 1827 JR10 (EXAMPLE #8)

6. THERE IS NO DOUBLED EDGE REED. The existence of the doubled edge reed was documented in 1986³. It occurs on most "large size" dimes considered to have been struck in an open collar. The absence of this edge reed indicates this variety may have been struck using a different collar. However, neither the number of edge reeds (104) nor the diameter (approximately 18.75mm) of JR10 differs appreciably from other varieties of 1827 dimes.
7. THE REVERSE DIE CRACK IS THE FIRST OF ITS KIND. Dimes struck around this time did not generally develop die cracks. Die 'warping' was the norm, creating bulges on the finished coins which occurred as late as the 27 JR1 die marriage around stars 1 and 2

A die crack, especially a crescent shaped crack like that on the reverse of JR10, suggests a change in the method of manufacture. (This occurred again in 1836 with the advent of the steam press). This die crack likely occurred because striking pressure was increased. See Figure 4.



FIGURE 4. 1827 JR7 (EXAMPLE #4)

Obverse and Reverse Die Diagnostics

Additional diagnostics for the obverse and reverse dies may be needed, especially when attributing lower grade examples. I have used the date almost exclusively when identifying 1827 Obverse 6. Digits 8 and 7 in the date are lower at top and bottom than the 1 and the 2, creating a “roller coaster” effect when viewed from left to right. Also note that the serif of the 7 is immediately to the left of the curl and S1 points high up on the neck. Reverses F and G are similar and quite difficult to distinguish on worn examples (see Figure 5). Another good diagnostic in addition to those listed in *Early United States Dimes* is the relationship between M and E3. On Reverse G (1827 JR8 and JR9), the M is well above E3 at the right. Additionally, check for a distinct obverse rim on examples which grade better than Fine.



FIGURE 5. 1827 JR7 (EXAMPLE #7)

To acquire an unattributed example of 1827 JR10, memorization of the obverse die diagnostics is a must. Usually you will want to purchase any dime with this obverse, since JR9, which shares the obverse die, is also not a common coin.

The high price tags on the proof examples put them out of reach of many die variety collectors. Consequently, 1827 JR10 and the 1829 curl base 2 have been placed in a category by themselves, and these die varieties end up being some of the last varieties acquired to complete the Capped Bust Dime set. Additional unattributed examples of 1827 JR10 may be waiting for the knowledgeable and fortunate die variety collector.

Examination of the Examples of JR10 Listed in Walter Breen's Proof Encyclopedia

Walter Breen's Encyclopedia of United States and Colonial Proof Coins contains references to proof examples of the JR1, JR8, JR11, JR12, and JR10 die marriages of 1827 dimes. These four examples are listed as being JR10:

1. F.C.C. Boyd, World's Greatest Collection: 476, 1946 ANA:243. *This is example 5 in the list below.*
2. 1946 ANA:1604. *This coin is not plated in the catalog.*
3. 1958 ANA:40. *This coin is not plated in the catalog.*
4. Lester Merkin 2/71:563. *This coin is plated in the catalog and is not JR10. It is either JR4 or JR11.*

These examples are listed as unattributed:

1. Various owners eventually to Mrs. R. Henry Norweb. *This is example 1 in the list below.*
2. Kreisberg, Abner, and Schulman's Waldorf sales of 4/59:1555 and 2/60:1171. *It is unclear if this reference is meant to denote two separate examples or the same example in two separate sales. Neither coin is plated in the auction catalog.*
3. Adolphe Menjou 6/50: 176. *This coin is not plated in the catalog and is listed as an uncirculated gem with a brilliant proof obverse surface.*
4. Philadelphia Estate. *This is example 4 in the list below.*
5. B. Max Mehl's sale of the Jerome Kern collection 5/50:1670. *This coin is not plated in the catalog.*

There are some additional examples listed as proofs of JR12 and JR11. I did not check to determine if either of the two examples listed from auction catalogs could be JR10.

The following is list of known specimens of 1827 JR10 in the order of their last auction appearance or discovery:

Proof Examples

1. PROOF 55 - NORWEB FAMILY DONATION TO NATIONAL NUMISMATIC COLLECTION, SMITHSONIAN INSTITUTION
2. NGC PROOF 65 - AUCTION '89:540
3. NGC PROOF 67 - CLENEAY 12/9/1890:1498, JAMES KELLY, BAREFORD:170, LOVEJOY:85
4. PROOF 63 - J. C. MORGANTHAU 10/5/39:469, STARR:354, R. LOGAN
5. PROOF 63 - F.C.C. BOYD, WORLD'S GREATEST COLLECTION: 476, 1946 ANA:243, STACKS 6/8/00:596

Circulated Examples

6. EF or slightly better - B. GREER, L. BRIGGS, D. DAVIS
7. G6/AG3 - S. KUBACKI, B. GREER, M. SHERRILL, L. SCUDERI
8. VF+ - M. SHERRILL 12/98

There is rumor of an impaired proof or an AU circulated example in a Midwest collection.

An Attribution Challenge

FIGURE 5. EXAMPLE #7. Definitely worth a second look! Close study of the reverse of this coin reveals the similarity of 1827 reverses F and G, given the absence of I1, diagnostic dentils above I2 and some of the other major diagnostics.

Summary

Circulated examples of 1827 JR10 exist. All examples of this die marriage probably originated as presentation pieces and some entered into circulation. Above average strike and fully mirrored fields indicate this die marriage was intended to produce the finest product available at the Philadelphia mint at this time. Between the striking of the JR7 and JR10 die marriages, the reverse die was enhanced. Several factors indicate 1827 JR10 may have been the first dime die marriage struck from a closed collar, including a raised obverse rim and beaded dentils. Because the obverse rim is not raised around the entire periphery of the coin, the closed collar used to strike 1827 JR10 may have been an experimental or transitional design. Analysis of the examples listed in Breen's Proof Encyclopedia does not reveal any previously unknown specimens of JR10.

Acknowledgments

The author would like to thank Dave Davis, Brian Greer, Russ Logan, and Louis Scuderi for their valuable contributions and suggestions.

Notes

1. In the text of this document the terms 'proof' and 'presentation piece' are used interchangeably. The intent is to distinguish these pieces from circulated examples and the terms are used non-rigorously. The interested reader is referred to the **Floyd T. Starr** auction catalog below for additional information concerning the definition of a proof at this period in the Mint's history.
2. D. Davis et al., **Early United States Dimes**, John Reich Collectors Society, Sept. 1984, pg. 145.
3. Allen F. Lovejoy and William L. Subjack, **Early Dimes, 1796-1837**, in America's Silver Coinage 1794-1891 Coinage of the Americas Conference at The American Numismatic Society, New York, November 1-2, 1986, American Numismatic Society, 1987, pp 103-136.

Additional References

4. Stack's, Inc., **The Legendary Collection of Floyd T. Starr**, October 20-22, 1992, pg. 46
5. Stack's, Inc. **The Allen F. Lovejoy Reference Collection of United States Dimes**, October 16, 1990, pg. 47.
6. Rarcoa, et al., **Auction '89 Catalog**, July 7&8, 1989, pg. 170.
7. Lester Merkin, **Catalog of Public Auction Sale** February 12&13, 1971, pg. 32.
8. W. Breen, **Encyclopedia of United States and Colonial Proof Coins 1722-1989**, Bowers and Merena Galleries, 1989, pg. 47.
9. W. Breen, **Complete Encyclopedia of U.S. and Colonial Coins**, F.C.I. Press, Inc., 1988.



The Broken Edge Die on 1832 Reverse B Dimes: What Can It Tell Us About the Minting Process?

Louis A. Scuderi

One of the more interesting varieties in the closed collar bust dime series is the 1832 JR3 dime with the prominent edge cud located to the left of the date. The reverse die for this variety was the second and final use of 1832 Reverse B, the first use occurring with the production of 1832 JR2. For years I, and other collectors, have used the presence of a strong die crack from the rim through the top of A3 to the top and middle arrowheads and finally back to the rim to quickly identify the JR3 R4 die marriage. This “arrowhead” crack is listed as die crack 5 for Reverse B in **Early United States Dimes** (Davis et al., 1994, hereafter EUSD).

By 1992 I had located three for my collection and had seen several others, all with varying degrees of the strong arrowhead crack. In reviewing the description of the prior 1832 JR2 use of Reverse B in EUSD and examining many examples of this common R2 variety at shows (with and without the edge cud) it became clear to me that there appeared to be a significant gap between the latest known state of 1832 JR2 (with edge cud but no die cracks) and the 1832 JR3's that I had found. This suggested that the formation of the large arrowhead crack occurred rather quickly. As well, the edge cud appears to be stable over time suggesting that it failed suddenly during the production of 1832 JR2. As will be shown later in this paper this edge cud stability turned out to be useful in determining the relationships between the obverse and reverse dies and may tell us something about the minting process. As far as I have been able to determine, this is the only edge die to fail in the Capped Bust Dime series.

Over the years I continued to check the reverses of the few 1832 JR3 dimes I located at shows, but was unable to find the missing intermediate die state. At the ANA in Denver in 1996, Russ Logan and I briefly discussed the 32 Reverse B dimes and he showed me a figure he had put together to help identify a possible remarriage of 1832 JR2. I filed that information away and our discussion moved on to other things.

Early the following year, while looking through some early dimes at a small store in Albuquerque, New Mexico, I found a VG 1832 dime with an edge cud. Without further checking of the obverse I flipped the coin over to check the reverse for the telltale arrowhead cud and found none. Assuming that I had found yet another JR2 I returned to the obverse of the coin and realized that the S12-S13 relationship was wrong for a JR2. I had finally found the very early die state of 1832 JR3 that I had been looking for five years. Since then I have seen at least a dozen other 32 JR3's, but none are even close to the VEDS coin.

Fast forward to 2000/2001. An email to me concerning a relatively early die state 1832 JR3 dime that I had won on EBay got me thinking again about my VEDS JR3, a possible VLDS JR2, potential remarriages, and the 1832 Reverse B in general. When looking my coins in detail I realized that because of the edge cud I had a distinctive marker, much like that found on the 1821 to 1824 dimes (Lovejoy and Subjack, 1987). This marker could be useful to examine the relationships between the obverse and reverse dies and might provide some clues as to the different die states of the Reverse B coins, and the evolution of die cracks on the 1832 JR3 variety.

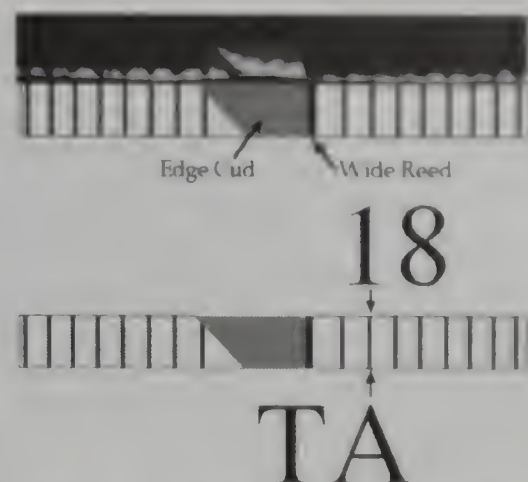


Figure 1: Edge cud on 1832 JR2 and JR3 dimes. Lower portion of figure shows reference positions discussed in the text.

One interesting fact about the edge cud itself (Figure 1) is that while it does not change significantly in size between 1832 JR2's and the latest die state 1832 JR3's I have seen (later than pictured in EUSD), the positioning of the reverse letters relative to the very wide reed at the right side of the edge cud does change. Thanks to Russ Logan and Mike Sherrill I was able to examine a sequence of 16 1832 reverse B dimes and work out the positioning of the edge cud relative to both the obverse and reverse dies. The sequence of reverse die states for Reverse B is detailed below.

1832 JR2 (32-2 Obverse, 32-B Reverse) Die States

State 1: Perfect dies with no edge cud.

State 2: Edge cud forms. No cracks on reverse B. (Figure 2).

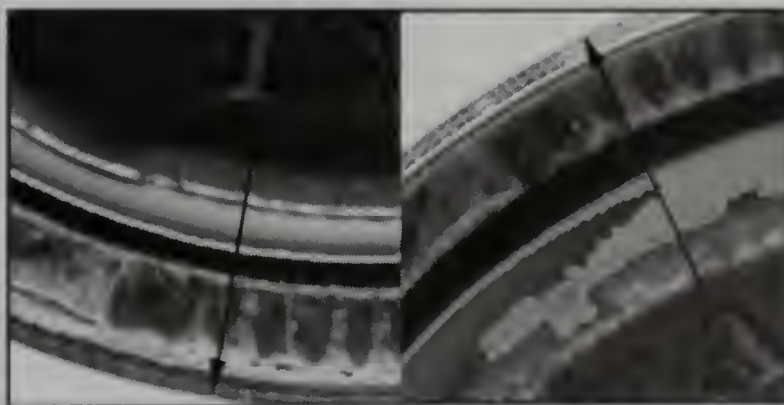


Figure 2: 1832 JR2 with edge cud. Initial State.

State 3: Faint die cracks form from rim to A1 to scroll, rim to A2 to scroll over third U in motto, from upper tip of right wing to M, and from the tip of talon to upper serif of C2. These are cracks number 2,3,4, and the central portion of crack 6 listed in EUSD for 1832 JR3.

State 4: VLDS. In addition to the forementioned cracks, a faint die crack forms from the tip of the eagle's right wing to the shaft of the top arrowhead to lower edge of the claws to the



Figure 3: 1832 JR2 Very Late Die State.

upper serif of C2 to the digit zero. (This is an early, nearly complete state of crack 6 listed for JR3 in EUSD). In addition, a crack forms from E1 to the left end of the scroll (Crack 1 for JR3), another forms from the rim to A3 to the arrowhead slightly above the crossbar of A3 (Early partial state of crack 5 for JR3), a third crack forms from the center of C2 to the bottom of the 0 in the denomination to the rim (Crack 7 for JR3), and a final crack forms from the tip of the eagles left wing to the rim (Crack 9 for JR3). (Figure 3)

1832 JR3 (32-3 Obverse, 32-B Reverse) Die States

State 1: Identical reverse die cracks as in State 4 of 1832 JR2. (Figure 4)

State 2: The arrowhead crack (die crack 5 of 1832 JR3 as described in EUSD) rapidly expands and intensifies with a triangular piece of metal missing between the upper point of A3, the tip of the upper arrowhead and just above the crossbar of A3. (Figure 5). The arrowhead crack then extends through and then along the lower edge of a top arrowhead, to the middle arrowhead, and then faintly to the rim from both the point of the second arrowhead and from lower side of the middle arrowhead (approximately 1/4 down from tip) to the rim two dentils below previous faint crack.

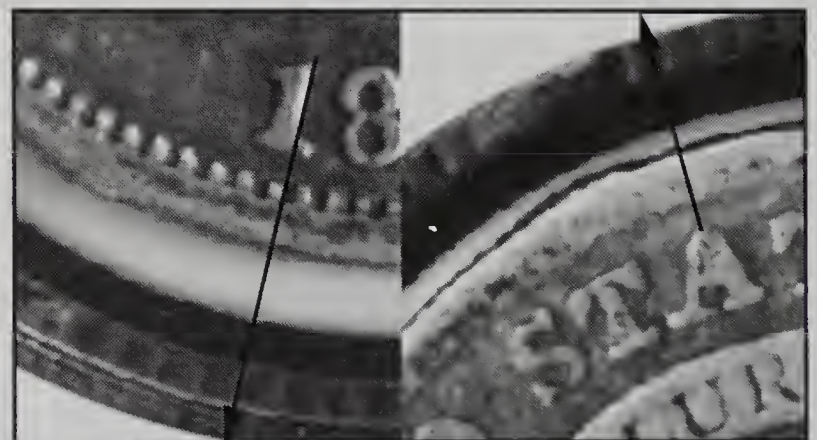


Figure 4: 1832 JR3 Very Early Die State.



Figure 5: 1832 JR3 Intermediate Die State (Beginnings of the arrowhead crack).

State 3: All cracks intensify and the area between the two faint arrowhead to rim cracks merge to form triangular missing area. A faint crack begins from the bottom arrowhead (southwest corner) to the period (Crack 8 described in EUSD). The area around the upper two arrowheads begins to appear disconnected from remainder of coin.

State 4: Additional die cracks form in the area of the denomination, talons and arrow shafts. All cracks are heavy. Additional heavy cracks extend from the lower right wing tip up the wing and join the now heavy crack from the top of the right wing to M (Figure 6).

State 5: While I do not have an image of the coin, I was able to take notes (but was not able to purchase) on an AU55, possible terminal die state of 1832 JR3 on a bid board at Worthy Coin in Boston, Massachusetts. This coin had a very high, almost knife edge rim above the arrowhead crack with the entire arrowhead crack area appearing to be depressed below the remainder of the field. The large wing crack listed in State 4 above joins with the crack through the talon, C2, and to the rim, forming what appears to be a second outer depressed area. All cracks in state 4 were very heavy and the reverse die has the appearance of being nearly shattered on the right side.



Figure 6: 1832 JR3 Very Late Die State.

This last die state of 1832 JR3 was followed by the marriage of the 32-2 obverse and the 32-C reverse to produce 32JR5 (Davis et al., 1984).

The Collar Die

In 1987, Lovejoy and Subjack suggested that implementation of the closed collar may have had a favorable influence on die life. They note that of 21 bust dime varieties with cuds, 19 occur on closed collar coins. Of these closed collar coins the majority of the cuds occur on the reverse (Davis et al., 1984). Lovejoy and Subjack, (1987) hypothesize that a supporting collar device may have held the dies together longer which would have accounted for the longer die life. In support of this hypothesis the average obverse die life increases from ~130,000 for the “open collar” to ~195,000 for the “closed collar” obverse dies. The average reverse die life increases from ~141,000 for the “open collar” to 175,000 for the “closed collar” reverse dies.

While it has generally been assumed that the edge die was somehow connected to either the obverse or the reverse die on the closed collar coins, the observations outlined below for the 1832 Reverse B dimes would seem to suggest otherwise, with the dies slipping relative to each other. (A highly unlikely alternative would be that either the obverse or reverse die was actually connected to the edge die, but because of the broken edge die the collar was constantly repositioned by mint workers).

Based on the examination of the 16 coins in the 1832 JR2-JR3 die emission sequence listed above, it appears that there are six distinct positioning states of the obverse and the reverse relative to the rim cud. The edge reference point used to evaluate the relationship between the

obverse and reverse and the edge die is the wide reed to the left of the edge cud (when the coin is viewed from the edge and the obverse is up and the reverse is down- See Figure 1). The obverse reference point is the right side of the upright of the 1 in 1832, while the reverse reference point is the right tip of the top of A1.

Four of the positions appear with regularity and are listed below. Two additional positions were observed but appear to be transitory. Based on the relatively large number of positions relative to the number of coins examined it is likely that many more exist. Relationships between the rim cud and the obverse and reverse dies for the 16 specimens examined are delineated in Figure 7. Since the 1832 JR2 without the edge cud has no fixed reference points it is not included in the discussion below.

1832 Reverse B Edge Positions

1st Edge Position: This edge state includes all 1832 JR2's with the edge cud (1832 JR2 States 2, 3 and 4). Relative to the edge die the point of A1 is located slightly less than two reeds over from wide reed at edge cud. On the obverse the right side of the upright of the 1 in the date is $2 \frac{1}{4}$ reeds over from the wide reed at edge cud (Figures 2 and 3)

2nd Edge Position: This edge state includes only the Early Die State (State 1) of 1832 JR3. On the reverse A1 is positioned 1 reed over from wide reed at the edge cud. On the obverse the right side of the upright of the 1 in date is positioned 4 reeds over from the wide reed at edge cud. (Figure 4).

3rd Edge Position: This edge state includes the intermediate die state 1832 JR3's: On the reverse A1 is positioned 1 reed over from the wide reed at the edge cud (as in State 2 above) while the obverse position of the right side of the upright of 1 in the date is $2 \frac{3}{4}$ reeds over from wide reed at the edge cud. (Figure 5).

4th Edge Position: This edge state includes most of the late to very late die state JR3's. On the reverse A1 is positioned $2 \frac{1}{4}$ reeds over from the wide reed at the edge cud. On the obverse the position of right side of the upright of the 1 in the date is $2 \frac{1}{2}$ reeds over from the wide reed at the edge cud. (Figure 6).

Conclusions

In Figure 7, I plot the position of the edge cud relative to both the obverse and reverse identifying markers. A direct

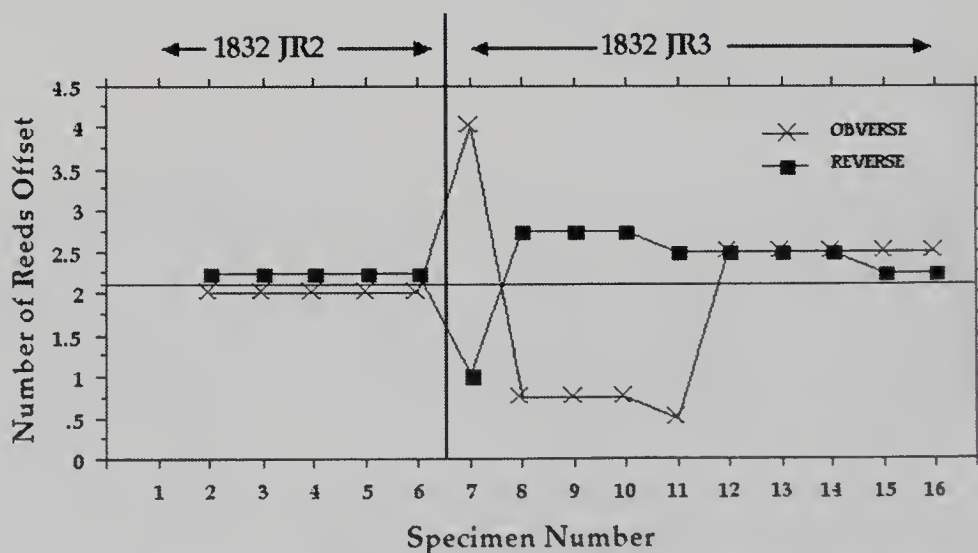


Figure 7: Obverse and reverse reed offsets relative to the edge cud for 1832 JR2 and JR3.

connection of the edge die to either the obverse or reverse die over the minting period for Reverse B would mean that the edge cud would maintain a constant position with respect to one of the dies. (Either the obverse or reverse plot would be a straight line at some constant reed offset). This is not the case with the JR2/3 variety, with apparent movement of both dies relative to the edge cud.

If the obverse and reverse dies were in fixed positions relative to each other, but the edge was not attached to either die, then any movement in one die marker position would be mirrored in the opposite die marker. (Obverse and reverse die markers would have mirror image patterns relative to the reed offsets). Again from figure 7 it is clear that the obverse and reverse movements are not mirroring each other. Finally, in the case of these particular varieties, Figure 7 clearly shows that relative to the edge cud both the obverse and reverse dies were freely moving. This suggests that the edge collar was attached to neither the obverse or reverse die.

Whether these observations for 1832 JR2 and JR3 are directly due to the failure of the edge die on this variety or are in fact the norm for "closed collar" coins of this period is still uncertain. The absence of edge die markers on other varieties makes it difficult to discern similar patterns of die movement relative to the three dies (obverse, reverse and edge). However, a careful analysis of a die state series of high grade coins of a particular variety with well preserved edges might reveal some identifiable reference marker (possibly a slightly offset reed or damage to an individual reed). Since there is still much to be learned about early mint production practices I strongly encourage collectors of bust coins with multiple die states of a particular variety to carefully examine the "third side" of their coins.

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Acknowledgements

Thanks to Russ Logan and Mike Sherrill for helpful comments, and for loaning me their specimens of the 1832 JR2 and JR3 varieties.



Early Dollar Notes

W. David Perkins, NLG

Three New Specimens of the 1795 B-10 Dollar Discovered

To quote from my article “The 1795 B-10 Silver Dollar – Much Rarer Than Thought?” in the **John Reich Journal**, Volume 13 / Issue 1, July, 2000, page 21:

“In conclusion, I suggest that the 1795 B-10, BB-22 die marriage is a Rarity-7 today, with 8 specimens known, one of which could possibly be a duplicate listing (the Haseltine specimen).”

As fate would have it, three new specimens were discovered since this article was written and published. I would like to report on these three new specimens of the R-7, 1795 B-10 silver dollar.

The first new specimen reported to me was a 1795 B-10 with ‘1793’ counterstamped on the obverse. This specimen was discovered, and purchased, (unattributed as to die marriage in the description) in an **E-Bay** auction sale by **JRCS** member Tim Toy. Tim has written about this discovery in an article titled “Found: The Elusive 1793 Flowing Hair Dollar” published in this issue of the **John Reich Journal**. Congratulations to Tim on his attribution, discovery and acquisition of this neat and rare silver dollar!



Obverse of 1795 B-10. This specimen is ex. B&M The Cabinet of Lucien M. LaRiveire, Part III:2. It is now in the collection of a JRCS member and die variety collector. It was graded NGC F-15 in this sale.



Reverse of 1795 B-10. This is the B&M LaRiveire specimen.

Jim Matthews, JRCS member, and officer, while attributing and cataloging auction sale lots for Ira and Larry Goldberg Coins & Collectibles, May 28-30, 2001, **The Fairchild Family Trust Collection** sale, discovered the second new specimen of 1795 B-10. It was offered as lot 843 in this sale. This specimen was graded PCGS VF-35 and was estimated at "\$5,000-UP." It realized \$13,225 in this sale! It was noted in the sale catalog description that this specimen "came to us without attribution, so the owner was likely not aware of its significance as a variety." Both obverse and reverse were plated in the catalog.

1795 Two leaves beneath each wing, Bolender-10, Rarity-7. PCGS graded VF-35...

The coin itself has a dark arc of toning through LIBERTY and a couple stars on the right, and is silvery gray on the rest of the obverse, the reverse is the opposite, dark tones ranging through greens, golds and dark gray on the lower eighty percent, lighter at the top. Identifiable by a small nick on the right side of the eagle's neck, and a tiny ding over the I in AMERICA. There is a small field mark above the highest curl on the back of Liberty's head and a tiny dig in the lower right obverse field. In the PCGS holder it is hard to see if the rims are clean, but they certainly have no significant bumps or bruises. In PCGS holder #3653761...

The third new specimen offered recently was Lot #2 in Bowers & Merena **The Cabinet of Lucien M. Lariviere, Part III** sale on May 21, 2001. It was graded NGC F-15, and realized \$4,830 (approximately 3X Trends price for a F-15 Flowing Hair silver dollar). This coin is plated in the sale catalog.

1795 BB-22, B-10. Rarity-5+. Two Leaves, Head of '95. F-15 (NGC). Pleasing silver gray fields with heather gray higher surfaces. Well struck, nicely centered, and with a very attractive overall prospect. A quality seldom seen at the F-15 level. Worthy of a strong bid!

Thus if the logic holds from my previous research and article, the 1795 B-10 die marriage is still a Rarity-7 with 10-11 specimens known to me. It will be interesting to watch and see if more specimens show up after "only being able to trace 8 different specimens that were offered over the last 120 years."



HALF DIME CENSUS INFORMATION NEEDED

The census for the half dimes 1794-1837 will be published in the next issue. Please send your inventory information (including duplicates) to us at JRCS, P.O. Box 135, Harrison, Ohio 45030. All information will be kept confidential. Collectors will only be identified by their membership number.

Found: The Elusive 1793 Flowing Hair Dollar

Tim Toy

Being a relatively new collector of early dollars by die marriage, I have learned that you must depend on many sources to find that elusive Bolender variety. Ebay has always been one of my favorite places to look, as you can have access at any time of the day. Providing that you are careful and patient, some nice buys do come along.

One day as I was scanning down a list of early dollars on auction at Ebay, I noticed a listing of a "1795 Flowing Hair \$1 Counterstamped/Cleaned". Not looking for the desirable "Stamped and Cleaned Variety of 1795", I was about to pass on it, but then remembered reading a small article by Robert Stark in the **John Reich Journal** of July 2000. In his "Early Dollar Notes", he commented about how abused and poorer examples of coinage may be a relatively rich source for scarce and overlooked varieties. I double-clicked to the coins page and there appeared a 1795 Flowing Hair Dollar with '1793' counterstamped across the obverse, running from the left stars to the right stars!

Before I could even think about how this coin came to be, I decided to first determine the die marriage. Referring to Jules Reiver's book **The United States Early Silver Dollars 1794-1803**, it was easy to see that the obverse of this dollar was his Obverse 6 - used on the 1795 B1, B10, and B16 die marriages. Before looking at the reverse photo, I was thinking that the coin was interesting enough to bid on even if it was the relatively common B1 die marriage. I casually looked at the reverse photo to confirm a B1, but instead, was looking at a reverse that I didn't recognize! Now I'm going through Reiver's book with a little more enthusiasm. After several minutes of checking and double-checking, I was sure that this fascinating, counterstamped, Flowing Hair Dollar was also a 1795 B10!

How much do I bid on something like this? A 1795 B10 is extremely rare but the coin had been polished and the significance of the '1793' counterstamp is unknown. Starting bid on the coin was \$24.50, with a reserve of about \$300.00. The last thing I wanted was bidder's remorse: That's where you kick yourself for bidding too little if you lose, or you kick yourself for bidding too much if you win. Thirty seconds before the end of the auction, I bid a maximum of \$601.50



Obverse of 1795 B-10 silver dollar with '1793' counterstamp.

figuring that it was over twice the reserve price and would be more than enough to win. Seven seconds before the end of the auction, the underbidder bids \$600.00. I won the coin by the narrow margin of \$1.50!

The coin arrived several days later. Upon closer inspection, the coin is lightly polished but still exhibits fine details. The numerals of the counterstamp are approximately 9/32" tall and 3/16" wide with depths of 1/3 to 1/2 of the coins' thickness. On the reverse, directly opposite the numerals, there is metal flow and loss of detail suggesting that high heat was involved in the process.

My theory is that it was a gift to someone whose birth or other important occasion happened in 1793. The style of the counterstamp numerals look like an early design suggesting that it was done relatively early in the coin's life. A large silver dollar, in those days, would have been a fairly substantial gift, but since there were no U.S. dollars dated 1793, and the 1794 Flowing Hair Dollar was extremely scarce, the solution was to counterstamp '1793' on the more available 1795 Flowing Hair Dollar. But why not engrave the date rather than counterstamping it? And as W. David Perkins wrote, "Why did they stamp the rare ones???"

We will probably never know the significance of the 1793 counterstamp and, in a way, this makes the coin even more interesting. It currently sits atop my desk and during quieter moments in a busy day, I look at it and try to wonder who and why. In many respects, it will be the most valuable early dollar I will ever own.



REMEMBER:

Your dues for 2002, Volume 14 of The John Reich Journal, are respectfully requested. Please send \$15.00 for 1 year, or \$375 for life membership to:

JRCS, P.O. Box 135, Harrison, Ohio 45030.

Please include your membership number on your check or return the postcard included in this issue.

1833 Rusted Die Quarters: A Possible Link to Climate

Louis A. Scuderi

Collectors of small sized capped bust quarters are familiar with the rusted die obverse and reverse of the 1833 Browning 1 quarter. Browning (1925) originally noted these dies progressively rusted during their use and Breen (1992) specifically found that the die states of the 1833 B1 variety range from the relatively rare unrusted State I (Figure 1) and II coins to the common State III coins which exhibit varying degrees of die rust (Figure 2). I have found the totally unrusted B1 fairly difficult to find with most 1833 B1's (R1) showing some evidence of rust damage. This suggests that the B1 marriage, as represented by State I and State II (unrusted and unrusted with clash marks respectively), was originally struck in limited numbers. The die was then placed in storage, probably for a considerable period, during which time it rusted. This die was later placed back in use and produced, in its rusted state, most of the 1833 B1 quarters.

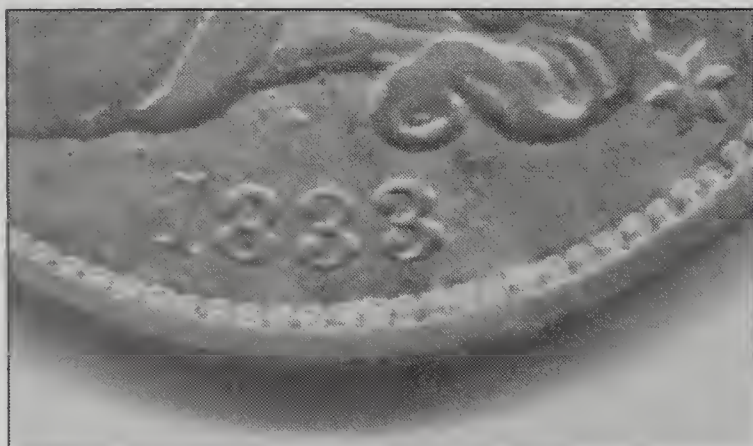


Figure 1. 1833 B1 State I unrusted die.

The timing of these events in the life of the B1 obverse and reverse dies has implications for the analysis of published production figures and for the evaluation of the relative rarity of specific dates and varieties in the series. This article looks at climatic information from Philadelphia from 1820-1840 and provides a possible fixed reference point related to the timing of production of the 1833 quarters. Finally, I speculate on

some of the possibilities of what this information might mean for the 1831 to 1834 quarter production totals relative to published mintage figures.

Die Rust and Environmental Conditions in Philadelphia in 1833

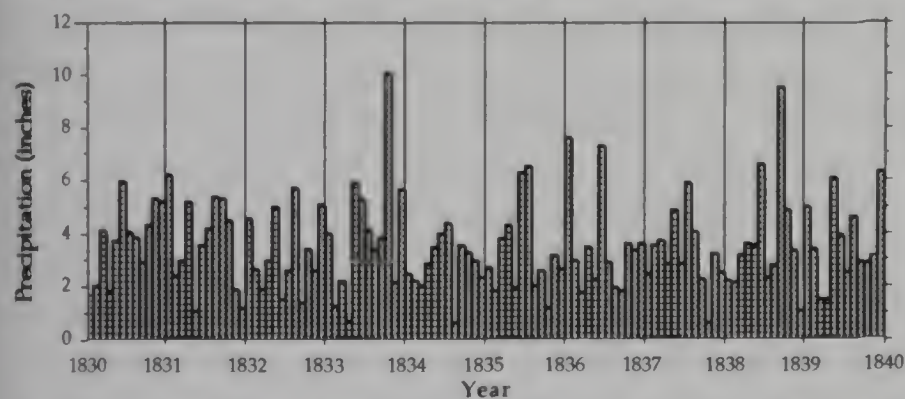
The presence of rust marks on many of the B1/B2 obverse and B1 reverse coins suggests that the die used to produce these coins was in a very wet/humid environment, possibly for a considerable period of time. While Blythe (1992) has noted that many coins from the New Orleans mint are found with rust marks due to the high humidity in the southern United States, it is relatively uncommon to find coins from the early



Figure 2. 1833 B1 State III heavily rusted die.

Philadelphia Mint with evidence of rusting. However they do exist in several denominations. Logan and McCloskey (1998) note that, despite the fact that wax was used as a rust preventative when dies were in storage, several half dime dies of the period became severely rusted. These half dimes include the 1829 LM18 Reverse M die, which is married with obverse dies from 1830, 1831 and 1832, and the 1834 LM3 Obverse 1 die. Among the quarters, Breen (1992) notes die rust on 1831 B4 reverse die, and the 1833 B1/2 obverse and 1833 B1 reverse. Occasional rusted dies are also found on Large Cents and Half Dollars from the early 1830's. However, the degree of rusting on the 1833 B1 quarter dies is considerable, far beyond that found on other rust damaged dies of the period. This suggests a period of exposure to water, and a prolonged period of rusting followed by additional rusting while the dies were in use.

In my job as a climatologist I often deal with historical meteorological records. A few years ago I had the opportunity to acquire historical precipitation records from Philadelphia and about a dozen other eastern United States cities covering the period from 1820 to the present. Some additional and incomplete temperature records from Washington D.C. were also acquired. What immediately struck me about the records for Philadelphia was a sharp spike in precipitation totals in October 1833, and specifically a measured precipitation of 10.05 inches for the month. This total was so high compared to other months that I first assumed that the data had been recorded in error. However, a check of other eastern stations for 1833 suggested that this event was real and based on the spatial distribution of precipitation values



for the stations suggests that the October 1833 rainfall event had its maximum in the Philadelphia area. This is in contrast to precipitation totals for other individual months in 1833 and into 1834 which are generally at or below average (Figure 3).

Figure 3. Philadelphia Monthly Precipitation (inches): 1830-1840. The rainfall total of 10.05 inches is 6.35 inches above the mean October precipitation for the period 1820-1840 (Figure 4) and is 7.43 inches above the average of the most recent 30 years (1971-2000). Regardless of the standard used, this extreme October precipitation total, the highest in 180 years of record, represents a value that is 4 to 6 standard deviations above the normal October precipitation for Philadelphia.

While temperature records do not exist for Philadelphia in 1833 (or at least I have not found them yet), records from Washington D.C. and a few other eastern stations cover the early 1830's. These records

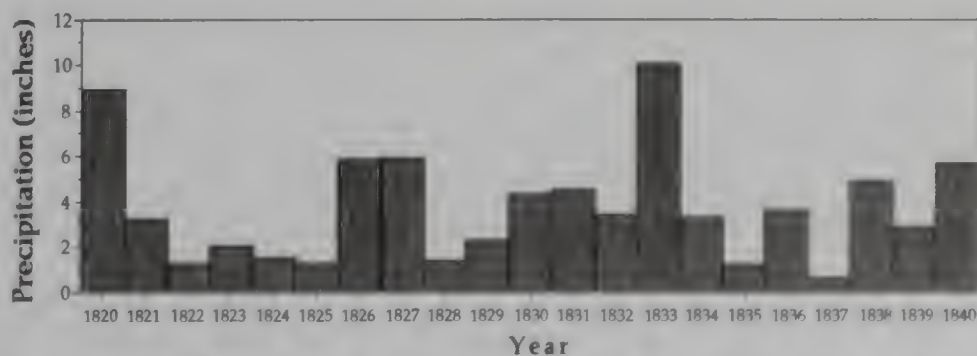


Figure 4. Philadelphia October Precipitation (inches): 1820-1840.

indicate that October 1833 was average in terms of temperature and would likely indicate that the regional pattern of temperatures for the Mid Atlantic states was similar. Recent normals for Philadelphia in October range from a mean maximum temperature of 66.3°F to a mean minimum temperature of 46.4°F. Over the last 58 years only a trace of snow has been recorded in Philadelphia in October. This suggests that the October 1833 extreme event was a rain rather than a snow event, with either torrential rainfall over the course of a few days, or generally wet/damp conditions continuously during much of the month. I have not yet explored written accounts from Philadelphia from October 1833, but it is likely that with an event of this magnitude that some commentary on the weather may have appeared in the local newspapers.

In either the case, and pertinent to the discussion of the 1833 B1 rusted dies, Philadelphia appears to have been an extremely wet place in October of 1833. These wet conditions may be responsible for the extreme rusting observed on the B1 variety and the October timing of the event may give us a clue to the dates of production of the unrusted and rusted die states.

Timing of the 1833 Quarter Production

Davis et al. (1984) and Logan and McCloskey (1998) have noted that the mint was in a state of disarray in 1833 with apparent random remarriages of dies for the 1833 dime and half dime production. As well, many of the 1833 dies were used in 1834 and possibly later. Davis et al. (1984) showed that the TED higher marriages of 1833 (JR7, 9 and 10) were minted after the rare 1834 JR3 dime. More recently, Sherrill (1998) has shown that the TED higher reverse was repeatedly remarried in 1834 and has suggested that a shortage of available dies of acceptable quality might have forced the use and reuse of dies that should have been retired. Logan and McCloskey (1998) found that for half dimes during this period reverse T was used in four die marriages (1832 LM8, 1833 LM2, 1833 LM3, and 1832 LM9) and nine remarriages. Reverse U, also in use in 1833, was used in an additional three marriages (1832 LM10, 1833 LM4 and 1832 LM11) and six remarriages. As indicated from the emission sequence (Logan and McCloskey, 1998) both reverse T and U were first used in 1833 with die remarriages possibly continuing into 1834.

Ed Note: Also see Finkelstein, Obverse Die Dentil Analysis, Part 2. JRJ 24, pp 6-18.

The reverse for the 1833 B1 quarter was first used for the 1831 B5 and B6 and the 1832 B1 marriages prior to its use for 1833 B1. An analysis of rarity ratings for 1831 and 1832 quarters and published production totals suggests that many of the 1831 quarters late in the emission order, and both 1832 varieties, may have been produced late in 1832 or even early in 1833. Blackwelder (personal communication, 1999) compared auction records and mintage figures and notes that the overrepresentation of 1833 quarters in auction records indicates that some of the reported 1834 mintage could have been dated 1833. Duphorne's (1975) census also indicates that 1833 quarters are over represented relative to their mintage figures. Breen (1992) also was of the opinion that the rusted obverse 1833 quarters were probably minted in 1834. My own personal experience suggests that 1833 B1 quarters, especially in the rusted die State III, are far more common than their mintage figures would indicate and are not worth the premium commonly asked.

One possible explanation is to assume that the wet October of 1833 may have been responsible for the die rusting found on the B1 State III quarters. While we are uncertain as to how long it might take to rust the dies, one has to assume that a minimum of a few weeks to a few months of storage in wet conditions might be required. If the initial 1833 B1 quarters, represented by Breen's States I and II and probably less than 10 percent of the total 1833 quarter production, were produced in mid to late-1833, and the die rusting took place subsequent to October 1833, then most of the 156,000 reported mintage for 1833 would be 1832 dated coins. This is in line with a shifting of some of the 1831 dated coins into the 1832 production totals, and most of the 1832 quarter production into the 1833 production totals. My own analysis of 1831 dated quarter appearances as well as extrapolations of production figures from rarity estimates suggests that 1831 is over represented, and is much more common than published production totals would suggest. These observations are also in line with the Duphorne's (1975) census data.

The above would place the bulk of 1833 quarter production in early to mid-1834. A second reference point that we have for the timing of the remainder of the 1833 B1 and B2 quarters is the production of the 1834 B2 quarter for the official proof presentation sets (King of Siam, etc.) in November of 1834. Breen (1992) notes that the 1834 B1 quarter was produced both prior to and after the B2 quarter. I have found that the initial marriage of 1834 B1 (State I) is represented by a small number of specimens relative to the frequently encountered remarriage specimens (States II, III and IV). (The first die state and the subsequent remarriage die state of B1 can be easily distinguished using the reverse die rotation. Relatively unrotated dies are State I, rotated dies are State II, III or IV). The initial 1834 B1 State I coins were probably produced just prior to November of 1834.

The 1834 B2 quarter, based on its probable R3(-) rarity, was likely in production for a short period of time before the B1 remarriage was produced suggesting that many, if not the bulk of the 1834 quarters, were produced in 1835 or possibly later. If 70 to 80 percent of the reported production of 286,000 quarters for 1834 were actually dated 1833 this would be more in line with the currently observed frequency of 1833 quarters.

Conclusions

The rusting of the dies used for the 1833 B1 and B2 (obverse) quarters may have been the result of a highly unusual rainfall event in October 1833 and subsequent storage of these dies in a high humidity environment during the winter of 1833/1834. If the 1833 B1 and B2 (obverse) rusted die coins were produced in 1834 then most production figures for bust quarters in the early 1830's probably do not correspond to the date on the coins issued that year. I would suggest that the initial production runs of each date probably occurred at least half way through each year and possibly as late as September or October. Additional information concerning this possibility, if it still exists, might be garnered in the archives of the Library of Congress.

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Acknowledgements

Thanks to Russ Logan for photographs and Larry Blackwelder for his insights on the small sized capped bust quarters. Additional thanks to Russ Logan and Mike Sherrill for continuing discussions about all aspects of bust coinage.



1833 B1 State I Obverse



1833 B1 State III Obverse



1833 B1 State III Reverse



On the Santa Fe Trail in 1870

W. David Perkins, NLG

If a coin could talk, this one would say, "I was there, on the Santa Fe Trail, in Las Vegas, New Mexico in 1870."

Las Vegas, New Mexico was a major trading point on the Santa Fe Trail in the 1800s. Per a local community web site, "Las Vegas sits in a high mountain meadow at an elevation of 6,470 feet. The Rocky Mountains literally begin on the west side of town, and the Great Plains begin on the east side of town." The following quote helps to put Las Vegas in a historical perspective:

"Those traveling westward after 1835 arrived in Las Vegas not having encountered another city for 850 miles. They must have found Las Vegas a welcome sight. Eastbound travelers came through knowing it would be their last view of a city for many weeks." (Santa Fe Convention and Visitors Bureau web site, April 2001).

A brief history of Las Vegas is given on the same web site.

"Las Vegas was established by land grant in 1835. The history of Las Vegas is influenced not only by many different cultures, but also by two major forms of transportation. As a major trading point on the Santa Fe Trail, Las Vegas became a prosperous Spanish town. As trade on the trail increased, so did the variety of settlers in the town. When the Atchikson, Topeka, and Santa Fe Railroad bypassed the town by about a mile, the city of East Las Vegas was established near the railroad depot and both towns saw a brief period of major growth."

This diverse and historically interesting culture is further evidenced by a quote from the Convention and Visitors bureau web site:

"In a town where Pat Garrett saved Billy the Kid from lynch mob (1880), Doc Holliday ran a wild gambling parlor and a windmill was used for vigilante justice, it should come as no surprise that Las Vegas developed a reputation as one of the toughest settlements on the frontier."

In 1870, a man named John Q. Houts was almost certainly in Las Vegas, New Mexico. But how do we know this? There are no city directories from 1870 or 1871 to prove this. In 1870 the town was small and dusty, with a population estimated between 3,000 and 4,000 people. The town was mostly Spanish and Spanish speaking. Even the newspapers were printed in Spanish. (Information on Las Vegas in 1870 per Melanie Laborwitt, Curator, City of Las Vegas Museum, phone interview March 30, 2001).

In March 2001 I was offered and purchased a most interesting 1796 B-4 (Bolender-4) United States silver dollar. The obverse was counterstamped JOHN Q. HOUTS / LAS VEGAS, N.M. / 1870. All of the letters and the date appear to be individually punched. This silver dollar is evenly worn, and is beautifully toned from being stored open in an old Kraft manila

envelope. Perhaps this silver dollar was won in a card game playing with Doc Holliday... Putting wishes and dreams aside, the even wear and handpunched letters lead me to believe this may have been a pocket piece carried by someone named John Q. Houts. It would be unusual, but not impossible that a 1796 U.S. silver dollar was still in circulation in the west in 1870.



Obverse of 1796 B-4 silver dollar with counterstamp JOHN Q. HOUTS / LAS VEGAS / N.M. / 1870. What significant event took place in John Houts' life in 1870?

My research up to this point is limited to the internet, e-mail and phone. I have found two references to a John Q. Houts searching the internet. **Genealogy.com** shows a John Q. Houts listed in the 1870 census index for Kansas. This same source lists a John Q. Houts in the 1880 census index for South Dakota. We may never know for sure, but this is probably the same John Q. Houts, and the one who counterstamped this silver dollar.

Kansas was a dividing point for those migrating to the west. From information on the above websites, "in Kansas, the Santa Fe Trail divided into two branches. The Cimarron Cutoff, or desert route, was shorter, but had a 50-mile stretch of waterless prairie and was also more susceptible to Indian attack. The Mountain Branch, which followed the Arkansas River to Bent's Fort, then turned southwest to climb Raton Pass, was longer and required an arduous climb over the mountains." "In 1866, traffic peaked at 5,000 freight wagons... In 1879, when the first locomotive steamed into New Mexico, the Santa Fe Trail was history." Logically, John Q. Houts could have traveled along the Santa Fe Trail from Kansas to Las Vegas, New Mexico during this time.

Perhaps (and very likely given the census records) this same John Q. Houts migrated to South Dakota in the late 1870s or early 1880s. Two trade tokens are known with the name JNO. Q. HOUTS. Per Russell Rulau's **Standard Catalog of U.S. Tokens 1700-1900**, "J. Q. Houts is listed as a saloon proprietor in Sioux Falls 1884-87. His namesake A. B. Houts is listed in that same city in 1888-9. By 1891 J. Q. Houts saloon was relocated in West Superior, Wisconsin." One token listed in Rulau, struck on a copper-nickel planchet, reads GOOD FOR / 5C / JNO. Q. HOUTS / IN / TRADE. The other token is struck on a brass planchet and reads JNO. Q. HOUTS / GOOD FOR / 5C / AT BAR / SIOUX FALLS. In addition, there is also a (known) trade token from Raton, New Mexico issued by a B. F. Houts, a possible relative of John Q. Houts.

Perhaps this 1796 silver dollar traveled in the 1800s from Kansas, along the Santa Fe Trail to Las Vegas, New Mexico, then to South Dakota shortly after becoming a state and later to Wisconsin. What we do learn from this counterstamp is a little more about how and where one early silver dollar circulated and spent time – Las Vegas, New Mexico on the old Santa Fe Trail.



Discovery of a New Quarter Die Marriage, 1837 B6

Dr. Glenn Peterson

Several weeks before the ANA in August 2000, Brian Greer made a major discovery. He found an 1837 bust quarter with the Browning 1 obverse. This obverse is characterized by the left edge of the curl over the center of the 7. He recalled that the reverse of Browning 1 was known to have a crack through STATES. When he turned the coin over it did not have the usual crack. It also did not have other characteristics of reverse A seen on Browning 1, namely the arrow feathers being positioned over the right side of the 2 of 25C. Now he realized that this was likely a new die marriage and would cause great interest in the Numismatic community. He planned to visit several more shows before returning home so he decided that it was wise to submit the coin for encapsulation and attribution right away. He met David Lange of NGC and told him of his conclusion that the coin was a new die marriage. David researched the coin and found it not only to be a new pairing of dies but that the reverse was a newly discovered reverse die for the quarter series. Keeping in the tradition of the Browning text for attribution of bust quarters it was thus designated 1837 Browning 6.

I had the opportunity to study this discovery coin and photograph it. I would describe the reverse as follows:

Rev. D: Arrowheads are progressively more narrow from the lowest to the highest. 25C is low. T3 is higher than E2. M is higher than A2 and E3. Arrow feather ends just right of the center of 2, and olive stem is nearly over right side of C. Distance between A3 and arrowhead is 0.9 mm, and distance between 5 and C is 0.9 mm. Only die use.



Obverse of the discovery coin



Reverse of the discovery coin

Note the photographs of the obverse and reverse of the discovery coin and blown up photos of the date and the arrowheads. Note also the very narrow top arrowhead. No other 1837 has an arrowhead so narrow.



Enlargement of the date of 1837 B6



Enlargement of the arrows on reverse

Minutes of the 2000 Annual Meeting of The John Reich Collectors Society

At 8:32AM, on August 9, 2000, the annual meeting of the John Reich Collectors Society was convened in Room 202A of the Pennsylvania Convention Center, during the American Numismatic Association Summer Convention in Philadelphia, Pennsylvania. A total of thirty-seven (37) officers and members were present.

President David J. Davis welcomed all members, called the meeting to order, and introduced all members of the Board.

The reading of the minutes of the 1999 Annual Meeting were waived, as they were published in the most recent edition of the John Reich Journal.

Treasurer Russell J. Logan gave the Treasurer's Report, which included the following (figures rounded off to nearest dollar):

Beginning Balance	\$ 13,587.00
Income	\$ 2,943.00
Interest	\$ 446.00
Dues	\$ 6,420.00
Life Memberships	\$ 1,500.00
Total Income	<u>\$ 11,310.00</u>
Expenses	- \$ 177.00
Journal	- \$ 6,945.00
Postage	- \$ 321.00
Misc.	- \$ 1,801.00
Total Expenses	<u>- \$ 9,246.00</u>
Ending Balance	\$ 15,651.00

It was moved, seconded, and passed to accept the Treasurer's Report as read.

A Nominating Committee report was presented by Committee Chairman John McCloskey, with the following names placed into nomination for the annual election of officers:

President	David J. Davis
Vice President	John W. McCloskey
Vice President	Bradley S. Karoleff
Secretary	Stephen A. Crain
Treasurer	Russell J. Logan
Program Chairman	W. David Perkins
Director	James Matthews

It was noted that the names submitted for nomination were the same as for the previous year, with the exception of the positions of Program Chairman and Assistant Program Chairman, which were reversed from the previous year.

A motion to close nominations was made, seconded, and approved. A motion to elect the slate of officers, as nominated by the committee, was made, seconded, and approved. It was decided to appoint the same Nominating Committee for the next fiscal year.

Life Membership applications were received from the following members:

David Quint

Howard Barron

With no opposition from the membership, the Life Memberships were granted.

It was decided to schedule the starting time for next year's annual meeting at 8:30AM, assuming a 10:00AM bourse opening.

The Jules Reiver Literary Award was presented by Vice President Bradley S. Karoleff. It was noted that only one vote separated the first, second, and third place winners in balloting by the membership. This year's award was presented to Russell J. Logan for his article "Capped Bust Half Dollar Patterns and Related Issues".

A number of new and pending bust coinage reference books were reported by the membership. Dr. Glenn Peterson announced that his "Ultimate Guide to Attributing Bust Halves" is now available, in both hard and soft cover (spiral bound), from Money Tree Press, for \$75.00 postpaid for JRCS members, and for \$80.00 for non-members. The deluxe hard bound edition, for \$125.00, has been sold out.

Dr. Peterson also announced that he and Brad Karoleff are co-authoring a new reference on the bust quarters. The photographs have all been taken, primarily of the coins in two member's collections, and they are seeking information on die states for inclusion in the book.

Rory Rea (who was not present) is conducting research on a condition census of R5 and better bust quarters, and would like members with condition census examples of any of the bust quarters to contact him to arrange to have their coins photographed for inclusion in his book.

President David J. Davis asked each of the members present to stand and introduce themselves, giving their name, hometown, and collecting interests.

Member and early Federal coinage expert Ed Price announced that he is presently conducting research on the condition census of 1792 dismes.

It was announced that two new die marriages had recently been identified for the bust coinage - one in the bust quarters, the other in the bust halves.

- An example of what is now designated the 1837 B6 Bust Quarter (in the Browning numbering sequence) had recently been discovered by Brian Greer. It is a marriage of Obverse 1 with a new reverse. The discovery coin had been purchased by a JRCS member, and will be included in the new reference book on bust quarters.
- An example of the 1795 O-132 bust half has recently been confirmed. The O-132 was listed in the Overton reference, but it had never been seen by Overton. It was pictured in the earlier Beistle reference, but that coin's whereabouts is presently unknown, and no BHNC member had one. The discovery coin was a different example from the coin pictured in Beistle. Member David Finklestein announced that he would be giving a presentation on the newly discovered (confirmed) die marriage at the BHNC meeting.

John Reich Journal Editor Brad Karoleff made a plea for more article submissions for publication in the Journal.

Brad Karoleff announced that there would be a JRCS hospitality suite in room 412 of the Hawthorne Suites Hotel, at 8:00PM on both Wednesday and Thursday nights.

President David Davis indicated that he has a bogus example of the 1802 Draped Bust half dime. He also indicated that he had recently acquired a low grade example of the 1828 JR-1 dime, in extremely late die state; later die state than had previously been seen or published in the available literature.

The meeting was turned over to Program Chairman Jim Matthews, for his presentation on "Cleaning Coins". Several methods were discussed for the usually taboo subject of cleaning coins. It was indicated that most early bust coins have been cleaned and retoned somewhere in their history. Methods of identifying whether or not a coin has been cleaned were discussed. The most 'original' looking coins are the ones that had been cleaned most recently. 'Acceptable' and 'unacceptable' methods for retoning coins were discussed, as was the subject of 'doctored' and repaired coins. A detailed discussion of a hoard of (63) 1800 bust dollars, that had recently been purchased as a group by dealer Jonathan Kern, was discussed. Jim broke down the group by die marriage, and discussed the coins in detail. He indicated that the collection had been assembled as a Centennial set, and was not collected by die marriage.

At the conclusion of the presentation, President Davis adjourned the meeting in time to make the bourse opening at 10:00AM.

Respectfully Submitted,
Stephen A. Crain - Secretary

